



Betaren Express AM, EC

emulsion concentrate

phenmedipham 60 g/l + desmedipham 60 g/l + ethofumesate 60 g/l

Postemergence herbicide to control annual dicotyledonous weeds as well as some annual grass on sugar and fodder beet plantings.

Advantages:

- Highly effective against annual dicotyledonous and some grass weeds at their early stages of development
- Highly compatible as part of prepared mixtures with other herbicides to enhance the spectrum of action
- Fast herbicide action

Action

Mode of action

The preparation impairs photosynthesis and protein metabolism in weeds. Phenmedipham and desmedipham penetrate through leaves and have a translaminar effect, thereby preventing photosynthesis. Ethofumesate penetrates roots and leaves and has a systemic effect impairing mitosis in cells of weeds.

Protective period

Until 2nd wave of weeds.

Speed of action

Weeds stop growing during the first day after treatment. Visible signs of herbicide effect on weeds appear in 3 or 4 days after treatment.

Spectrum of action

Annual dicotyledonous and some grass weeds.

Sensitive species: ragweed, speedwell (species), pepper plant (species), charlock, knotweed, sheep bur, common fumitory, bur grass (species), satin, spring groundsel, common orach, pigweed (species), rough-stalked bluegrass, field scorpion grass, houndsberry, caseweed, hemp nettle (species), catch weed, wild radish, bladder campion, sandweed, field pansy, amaranth (species), dish mustard, day-nettle.

Moderately sensitive species: bluebottle, vetch, Aleppo grass, tansy mustard, velvetleaf, copper rose, loose silky bent, oat grass, green ginger, millet (species), crabgrass, foxtail (species).

Feebly sensitive species: Canadian thistle, sheepbine, foxtail, sow thistle (species), dandelion (species), ryegrass (species), field chamomile, quack grass, mayweed, quitch.

Compatibility

Use as part of prepared mixes to enhance the spectrum of action. Compatible with a wide number of herbicides, such as Furex, Lornet, Pantera, Healer, Forward, Mitron and others used on beet plantings. Before use, check for physical and chemical compatibility.

Potential for resistance

No potential for resistance is revealed.

Usage regulations

Crop / object of treatment	Harmful plants	Preparation consumption rate, l/ha	Mix consumption rate, l/ha	Method, time and conditions of application. Application time for manual (machinery assisted) operations	Wait time (application frequency)
Sugar and fodder beet	Annual dicotyledonous, including amaranth, and some species of grass weeds	4	200-300	Planting spraying at 2-4 true leaves stage and earlier stages of weed growth (2-4 leaves) -(3)	60(1)
Sugar and fodder beet	Annual dicotyledonous, including amaranth, and some species of grass weeds	2	200-300	Planting spraying at seed leaf stage of weed growth (during 1st and 2nd wave every 7 to 15 days) -(3)	60(2)

Application technique. Mix preparation method

Prepare the mix immediately before use. Dose the preparation for a single fill of the sprayer. Prepare in advance a concentrated emulsion of the preparation in a separate vessel. Fill the vessel to 1/4 of its volume with water, add the preparation dose, stir thoroughly, top up with water to 3/4 of volume (stock solution concentration – 50-70% of preparation). Then prepare the mix as follows: Fill the sprayer tank to about its half with water, add the concentrated preparation emulsion and top up with water until full while continuously stirring the mix using mechanical agitators. Rinse the vessel where concentrated emulsion was prepared with water several times.

When using prepared herbicide mixes, these shall be prepared in line with the recommendations for each particular preparation. Do not add other preparations to the concentrated emulsion (stock solution).

Prepare the mix and fill the sprayer on dedicated sites that are disinfected afterwards.

Use ground-based boom sprayers OPSh-15-01, OP-2000-2-01 or similar.

The best result and quickest herbicide action of the preparation are achieved by:

- crop treatment at earlier stages of weed development;
- crop treatment in the most favorable weather conditions. Optimal ambient temperature – max. 25 °C. Do not apply on beet plantings weakened by frosts, heat, and pests.

Phytotoxicity

Potential phytotoxicity effect on beet plants may appear when applied at high ambient temperatures (above 25 °C) and if the plants are under stress (frost, drought, etc.). Safe application hours for the herbicide are morning and evening.

Recommendations on protection of valuable flora and fauna objects

The preparation is of low hazard to bees – Hazard Class 3. Basic provisions of the 'Guidelines for preventing bee poisoning with pesticides' and following environmental regulations:

- treat plants at wind speed up to 4 or 5 m/sec;
- protection boundary zone for bees – min. 2-3 km;
- bee's flight time limitation – 3-6 hours.

Warn apiary owners 4 or 5 days before treatment.

Do not apply the preparation by aerial method and within the sanitary zone of fishery water bodies 500 m away from the flood line in case of maximum floodwater level, but not closer than 2 km to the existing banks.

General information

Chemical class

carbamates, benzofurans

Transport and storage conditions

Comply with all conventional rules of toxic substance transport. Keep the preparation in a dry room dedicated for pesticide storage. Storage temperature range – minus 10 °C to plus 35 °C. Stir before use

Shelf life

2 years

Hazard class

Hazard class 3, moderate hazard

Packing

5 liter PE container

Registrant

Schelkovo Agrohim, Russia

Manufacturer

Schelkovo Agrohim, Russia